AMENDMENTS TO THE CLAIMS

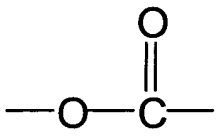
1. (Previously Presented) A polyolefin macromonomer comprising a polyolefin chain (P), a vinyl group (X) which may be substituted at the a-position thereof, and a linking group (Z) for connecting both, represented by the following general formula (I):

P-Z-X ----(I)

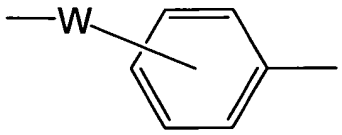
wherein P is a polymer chain having a molecular weight distribution (Mw/Mn) equal to or more than 1.5, obtained by homopolymerizing or copolymerizing olefins in the presence of a coordination polymerization catalyst containing a transition metal compound, said olefins being represented by $CH_2=CHR^1$ wherein R^1 is a hydrocarbon group having 1 to 20 carbon atoms, a hydrogen atom or a halogen atom, provided that Mn is equal to or more than 1000 when P is a homopolymer residue of polypropylene,

X is a vinyl group which may be substituted at the a-position thereof, represented by $-C(R^2)=CH_2$ whereupon R^2 represents a hydrogen atom or a methyl group, and

Z is an ester group (B1) represented by formula (VIII') or a phenylene group (B2) represented by formula (VIII) having a group containing a group selected from a carboxylate group, an amide group, an ether group and a carbamate group, and an ether oxygen atom in (B1) is covalently bound to the polyolefin (P):



(VIII')



(VIII)

2. (Previously Presented) The polyolefin macromonomer according to claim 1, which is obtained by successively conducting the following steps (A) and (B):

Step (A): a step of producing polyolefin having a hydroxyl group at the terminal of a polyolefin chain (P), represented by the following general formula (II):

P-OH ----(II)

wherein P has the same meaning as defined for P in the formula (I);

Step (B): a step of converting a terminal hydroxyl group in the polyolefin chain (P) obtained in the step (A) into an acryloyl group or a methacryloyl group.

3. (Previously Presented) The polyolefin macromonomer according to claim 1, obtained by successively conducting the following steps (A') and (B'):

Step (A'): a step of producing polyolefin having an unsaturated bond at the terminal of a low molecular weight polymer P', represented by the following general formula (III):

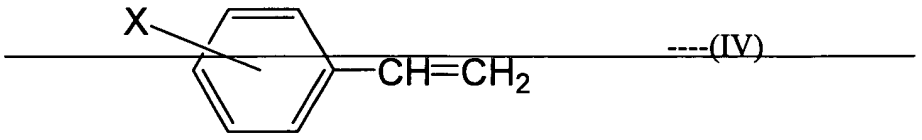
P'-U ----(III)

wherein P' is a polymer having 10 to 2000 carbon atoms and consisted of constitutional units derived from ethylene only or ethylene and an α-olefin having 3 to 10 carbon atoms, wherein the constitutional unit derived from ethylene is 20 to 100 mol %, and the constitutional

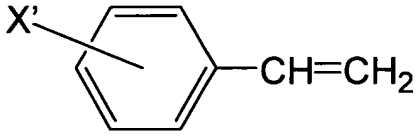
unit derived from α-olefin is 0 to 80 mol %, and U represents a vinyl group or a vinylidene group;

Step (B'): a step of converting the terminal vinyl or vinylidene group in the low molecular weight polymer P' obtained in the step (A') into an acryloyl group or a methacryloyl group.

4. (Withdrawn, Currently Amended) The polyolefin macromonomer according to claim 1, obtained by reacting a styrene derivative represented by the following general formula (IV):



----(IV)



----(IV)

wherein [[X]] X' is a group containing a group selected from a halogen atom, a hydroxyl group, a carboxyl group, an acid halide group, an epoxy group, an amino group and an isocyanate group,

with a functional group-containing polyolefin represented by the following general formula (V):

P-Y ----(V)

wherein P is the same as in the formula (I), and Y is a functional group selected from a hydroxyl group, an amino group, an epoxy group, a carboxyl group, an acid halide group and an acid anhydride group.

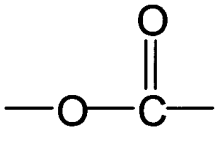
5. (Previously Presented) A graft polymer having a polyolefin backbone obtained by polymerizing a polyolefin macromonomer comprising a polyolefin chain (P), a vinyl group (X) which may be substituted at the a-position thereof, and a linking group (Z) for connecting both, represented by the following general formula (I):

P-Z-X ----(I)

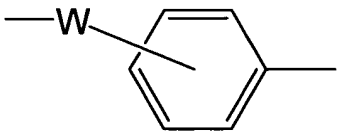
wherein P is a polymer chain having a molecular weight distribution (Mw/Mn) equal to or more than 1.5, obtained by homopolymerizing or copolymerizing olefins in the presence of a coordination polymerization catalyst containing a transition metal compound, said olefins being represented by $CH_2=CHR^1$ wherein R^1 is a hydrocarbon group having 1 to 20 carbon atoms, a hydrogen atom or a halogen atom, provided that Mn is equal to or more than 1000 when P is a homopolymer residue of polypropylene,

X is a vinyl group which may be substituted at the a-position thereof, represented by $-C(R^2)=CH_2$ whereupon R^2 represents a hydrogen atom or a methyl group, and

Z is an ester group (B1) represented by formula (VIII') or a phenylene group (B2) represented by formula (VIII) having a group containing a group selected from a carboxylate group, an amide group, an ether group and a carbamate group, and an ether oxygen atom in (B1) is covalently bound to the polyolefin (P):



(VIII')



(VIII).

6. (Original) The graft polymer having a polyolefin backbone according to claim 5 obtained by copolymerizing the polyolefin macromonomer represented by the above general formula (I) and at least one monomer selected from organic compounds having at least one carbon-carbon unsaturated bond.

7. (Original) A thermoplastic resin composition comprising the graft polymer according to claim 5.

8. (Previously Presented) A film, a sheet, an adhesive resin, a compatibilizer, a resin modifier, a filler dispersant or a dispersed system wherein each comprises the graft polymer according to claim 5.

9. (Previously Presented) A film, a sheet, an adhesive resin, a compatibilizer, a resin modifier, a filler dispersant or a dispersed system wherein each comprises the thermoplastic resin composition according to claim 7.